

Messaging and Server CoIN Meeting

May 16, 2006

Agenda

- Meet and Greet Scheduled
- Directory Synchronization
- Questions
- Server Optimization via Virtualization
- Questions
- Future Topics

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Directory Synchronization Approach

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Agenda

- Short Term Goals/Requirements
- Long Term Goals/Requirements
- Required Attributes
- Display Name Generation
- Unique Name Resolution
- Optional Attributes

Short Term Goals/Requirements

- Single directory of all users with email Addresses
- Address book functionality
- List of users that require email Migration
- Ease of lookup
- Current contact information for users in the address books
- Elimination of duplicate email entries

Long Term Goals/Requirements

- Email and other Contact information up to date within a 24 hour period for all Commonwealth Employees and Contractors
- Single Commonwealth wide directory
- Reduced sign-on throughout the Commonwealth
- Simplified provisioning and de-provisioning
- Simplified user, account, and mailbox administration
- Self service update for specific contact information
- Identity management

Required Attributes

- The attribute is required in order to be published to Central email directory or to Agencies, absence of the attribute will generate exception or report/feedback requiring resolution.

Required Attributes

Cn	Relative distinguished name for user.
Company	Standard Value: "Commonwealth of Virginia". Distinguish between people who represent, employed by, or directly support the Commonwealth of Virginia and those who don't.
displayName	Displayed in applications such as Outlook, created using LastName + ", " + " " + preferredName + " " + (displayNameModifier + ")")
Department	Formal/Official agency name
givenName	Formal Name.
Mail	Unique mail address
mailNickName	Required to be unique within org, populate with UID below
proxyAddresses	Full list of email addresses
sn	Formal last name of person
st	Assumes Virginia
telephoneNumber	Business Phone Number
uid	Uniquely identifies each person (Calculated)

Display Name Generation

givenName: Robert
Surname: Johnson

displayNameModifier: (IT Support)

**displayNameModifier updated by
service request**

Existing Display Name or Common Name:

Johnson, Bob

PreferredName: Bob

New Display Name:

Johnson, Bob (IT Support)

Directory Listing:
Johnson, Bob (IT Support)
Johnson, Bob (DSS)
Johnson, Bob (DOC)

Bob Johnson

UniqueID / userid

- A new userid will be generated to uniquely identify a user
- Benefits:
 - Auto-generated
 - May be used for future user id
 - Never changes
 - Unique to person
 - Independent of name
 - Map to alias/mailNickName

Unique Name Resolution

- Goal is One entry in central directory for each person—no duplicates
- Issues:
 - Timing of activation/deactivation for people moving from one agency to another is inexact, resulting in two entries in the central directory
 - No current unique identifier for a person
- Mitigation Steps:
 - Create uniqueid for each email address
 - Resolve through reporting/resolution to operational group

Optional Attributes

- This attribute will be populated if a source of the attribute value is available via agency feed or other feed, e.g. PMIS.

Optional Attributes

assistant	Used for higher level managers and directors
description	Reserved for specific purposes
division	organization within agency
employeeID	Uniquely identifies each employee, does not include contractors, used to identify information in PMIS
employeeType	Identifies the type of employment or contract with Commonwealth of Virginia, e.g. Full Time, Contractor
facsimileTelephoneNumber	Fax number
generationQualifier	Jr, III, etc.
initials	Middle Initial (normally one character)
Info	Reserved for administrative purposes
L	locality-name, city, e.g. Richmond
Manager	Direct supervisor. Displayed in applications such as Outlook.
Mobile	Cell Phone number
physicalDeliveryOfficeName	Local office, building, e.g. Richmond Plaza, Central Office
preferredName	Use with display name. Pull from common name or displayName in source directory.
streetAddress	Physical Address of Office
targetAddress	mail address of contact (Required for AD contact)
title	Possible PMIS source if not available from agency directory

Next Steps

- Establish Contact with remaining Mail Administrators
- Refine template and methodology for data collection
- Use the task-force to gather information, complete templates for each agency

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Questions??

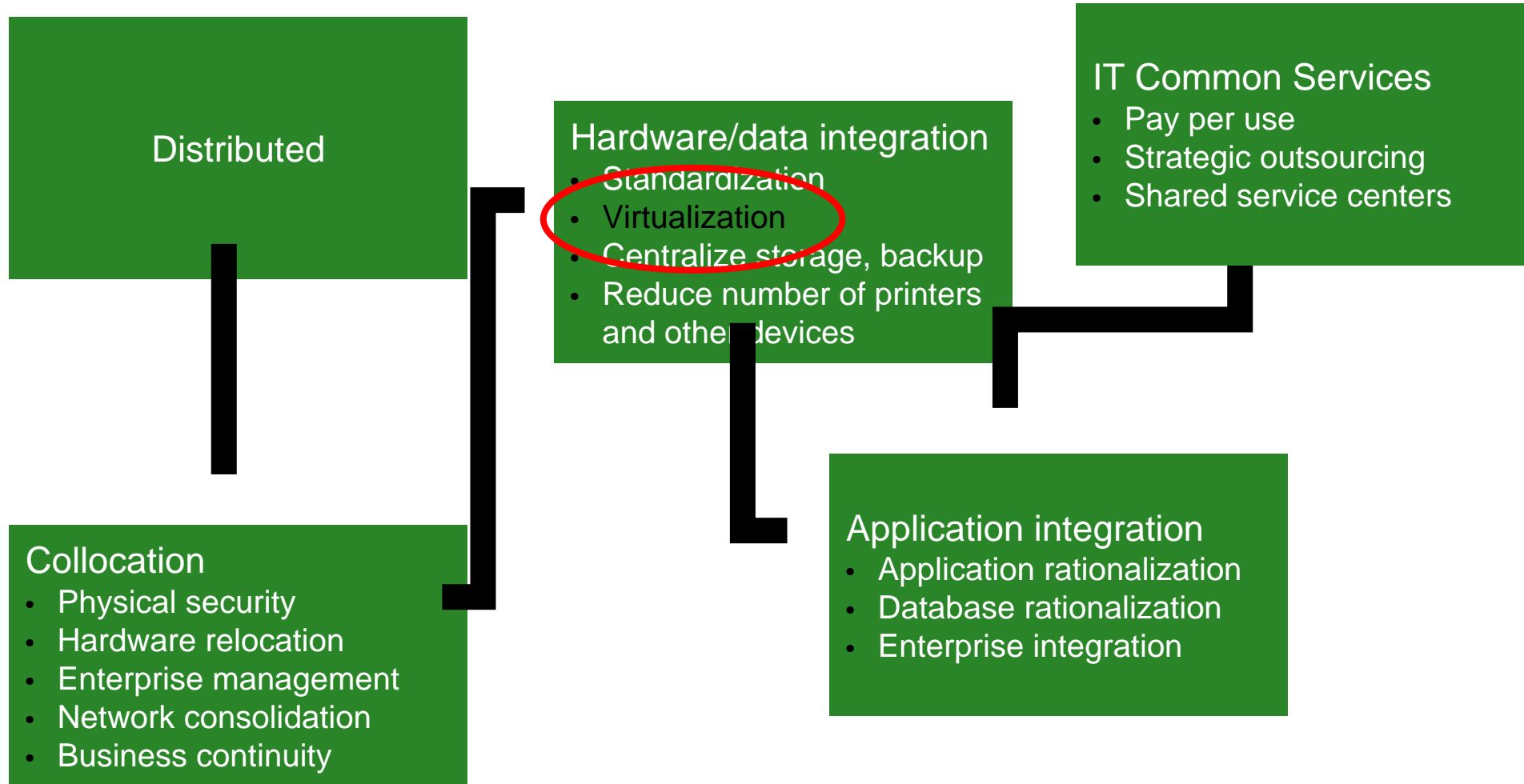
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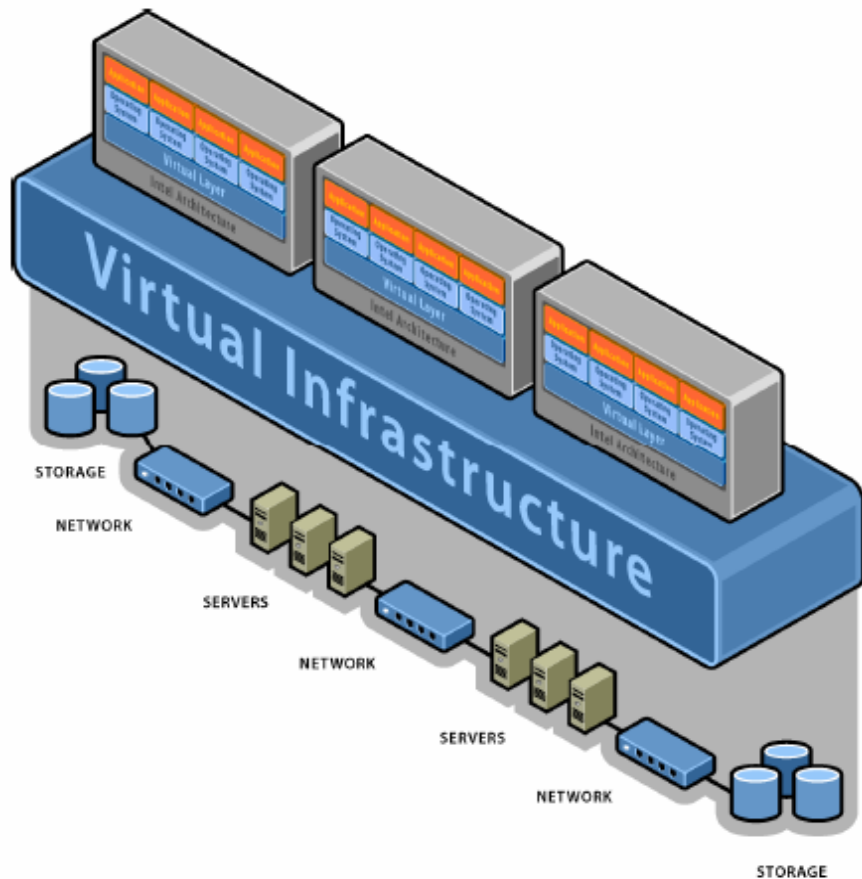
Server Optimization via Virtualization

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The IT Consolidation Journey



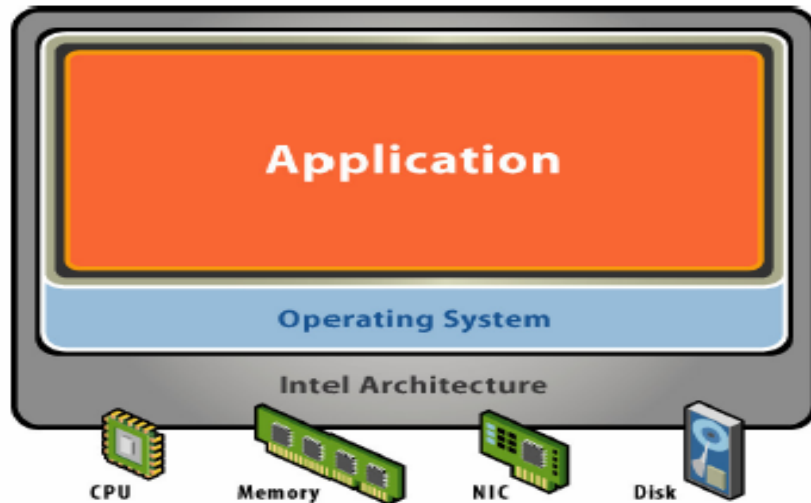
What is Virtualization?



- Abstraction – the separation of the physical hardware from the operating system
- Standardization – the operating system sees a consistent hardware platform, regardless of the “real” hardware
- Isolation – each operating system runs in its own protected space
- Encapsulation – a server becomes “just a bunch of files”

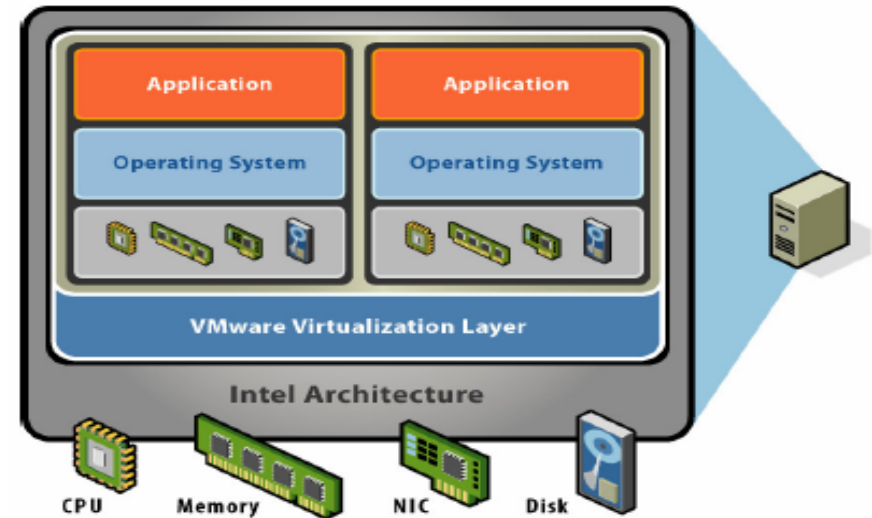
Virtualization Basics

Standard physical server



- Single OS
- Idle resources
- Bound to hardware

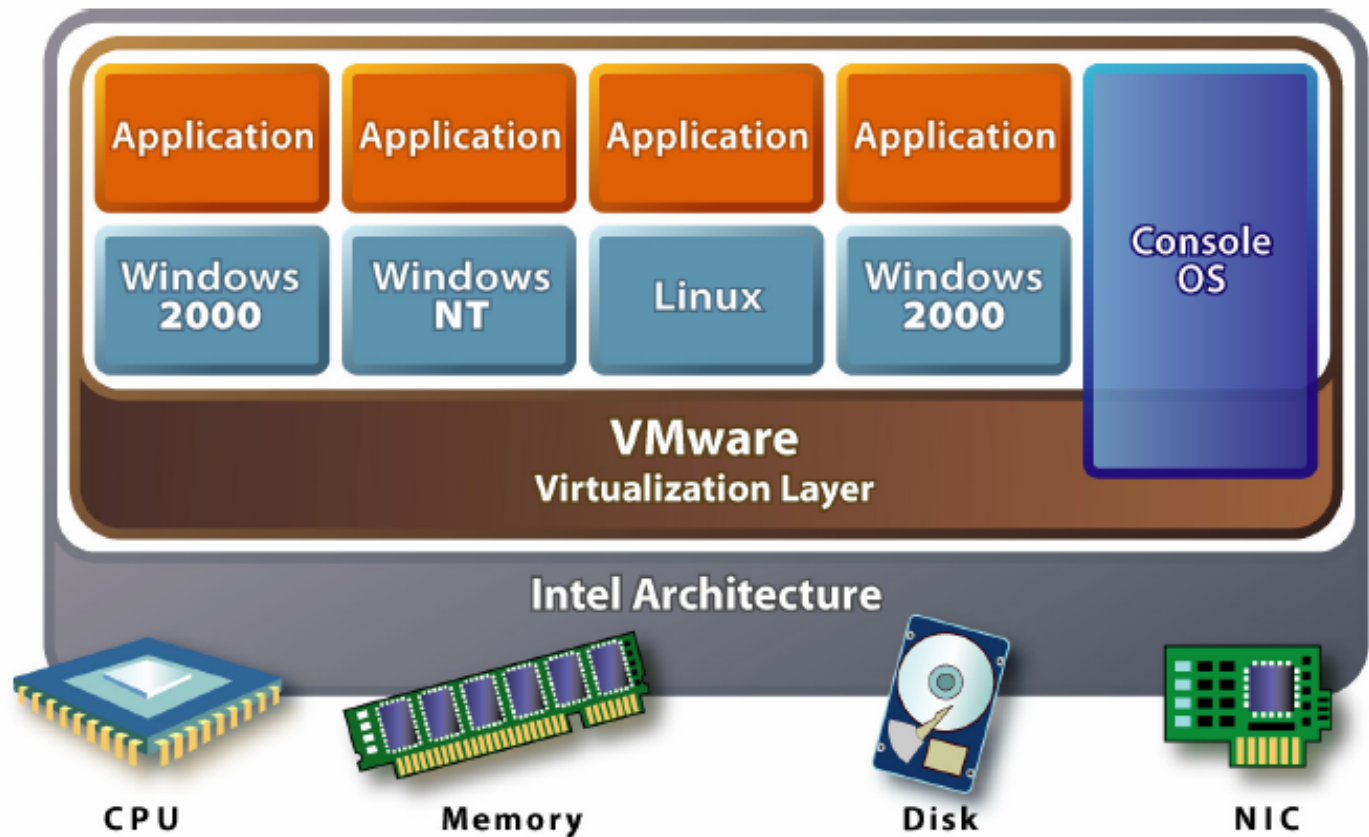
VMware virtualized server



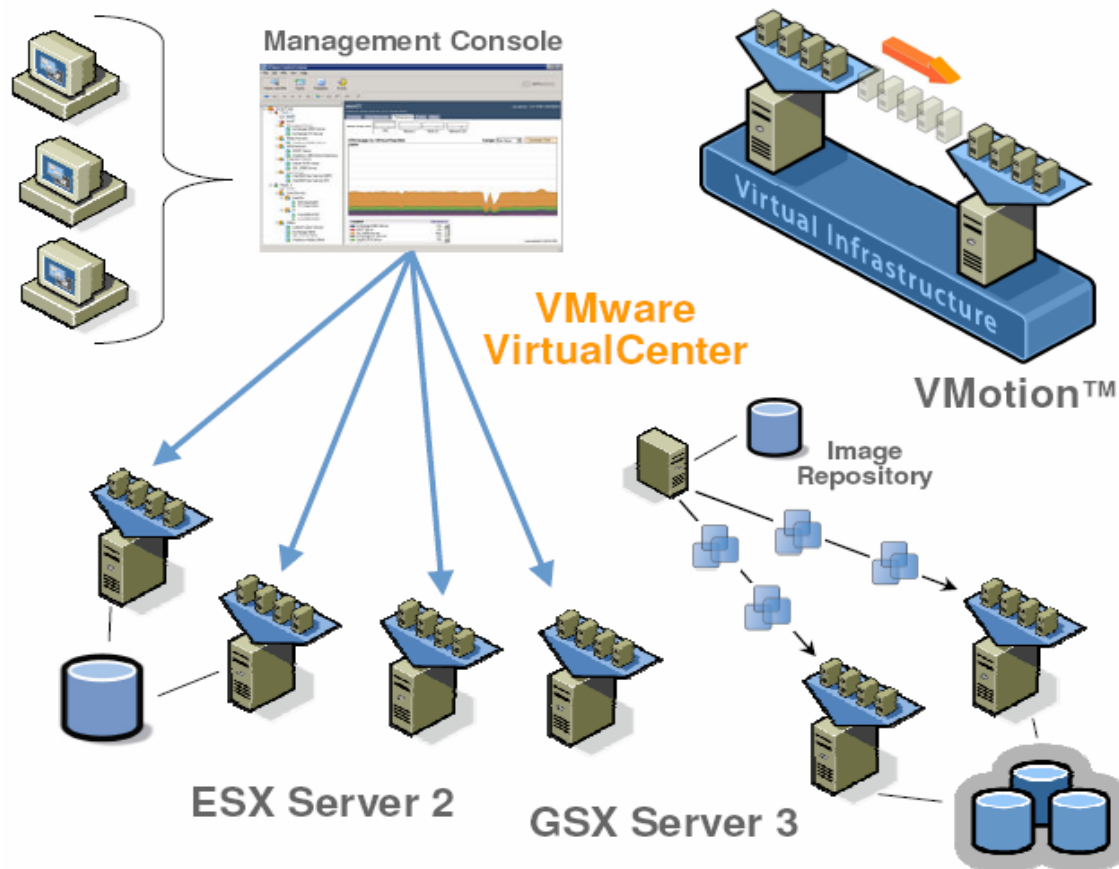
- Partitioning
- Isolation
- Encapsulation

VMware ESX Server

- A “bare metal” hypervisor that allows guest operating systems to run un-altered
- Virtualizes “core four” resources:
 - CPU
 - RAM
 - Disk
 - Network

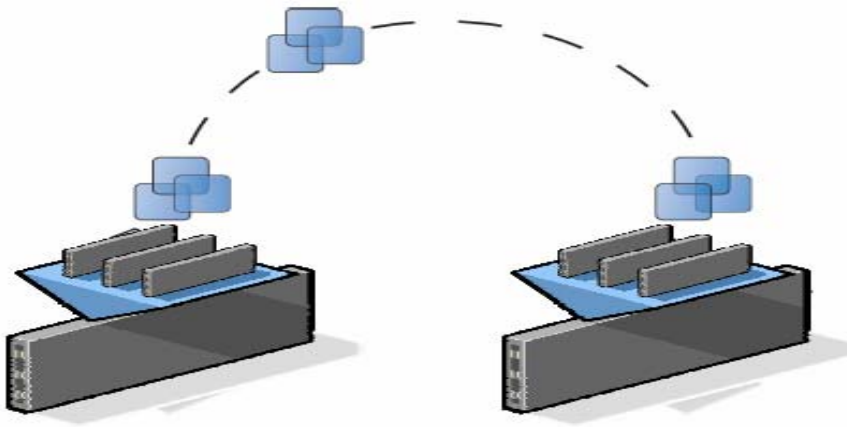


Centralized Management



- Single point of control for all virtual machines
- Performance and fault monitoring
- Instant server provisioning from templates
- Migrate live, running workloads between physical hosts

Instant Provisioning



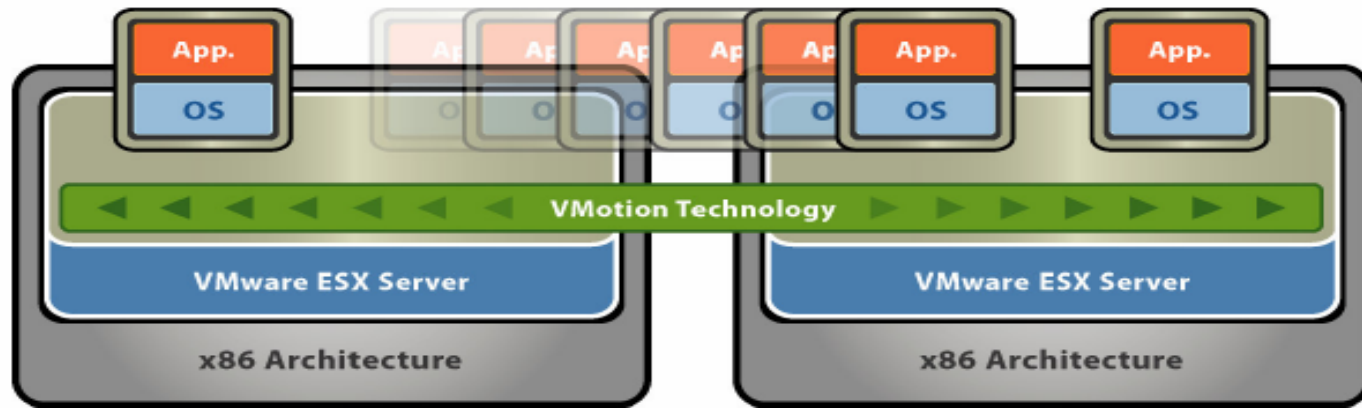
- Deploy a new server from a “Golden Template” in minutes
- Consistency is assured
- Deploy to any authorized host server

Simple Five-Step Process!

1. Start Deployment Wizard
2. Choose the desired server template
3. Choose the preferred host server
4. Click “Next”
5. Click “Next”

You're Done!

VMotion – zero downtime rehosting!

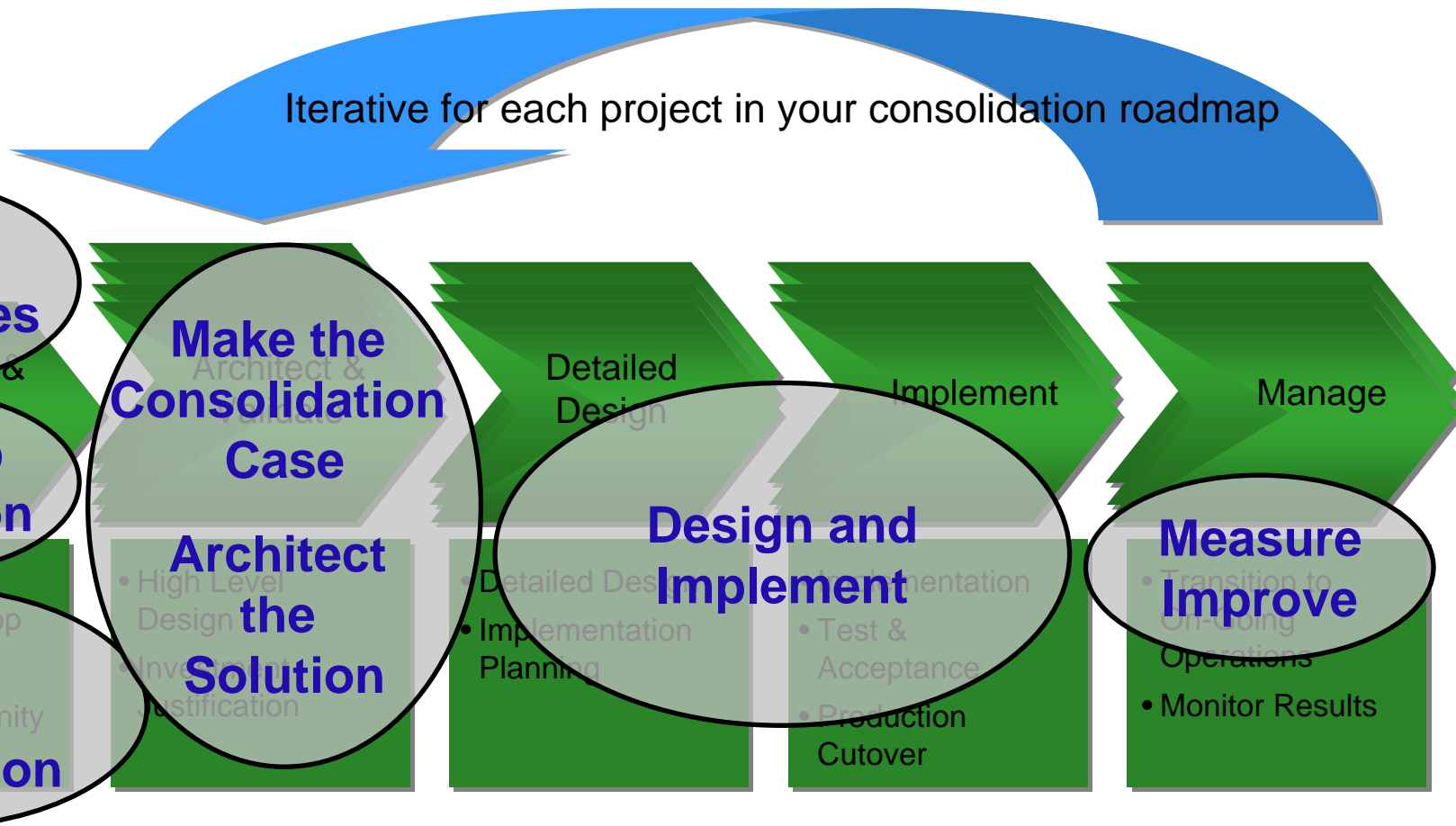


- Move live, running, stateful virtual machines from one physical host to another
- Users do not know that the migration takes place
- Optimize host utilization
- Daylight hardware maintenance

Getting from “here” to “there”

- Needs to be done in a measured, repeatable fashion
 - No “nuclear options” here!
- Must minimize disruption to production environments
 - CoVA doesn’t stop just because things are changing
- Should involve stakeholders early in the process (that’s why we’re here!)
 - Stakeholder involvement is key to project success

IT Consolidation methodology



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Questions??

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Future Topics?